



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/612,383 | 07/01/2003 | Ka Shing Kenny Kwan | P/4076-54 | 3682 |
| 2352 | 7590 | 10/25/2005 | EXAMINER | |
| OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403 | | | JOHNSON, JONATHAN J | |
| | | ART UNIT | | PAPER NUMBER |
| | | 1725 | | |

DATE MAILED: 10/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/612,383 | KWAN ET AL. | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) ____ is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some *
 - c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ . | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, and 4-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the instant case, applicant claims "substantially adjacent" but only has support for "adjacent." Applicant has no support for broadening the claim language by using the term "substantially."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Hisataka (JP 01-296636). Histaka teaches a bump forming device (figure 7, item 7); a chamber system adapted to house the semiconductor devices (Figure 1, item 10); a gas supply for

supplying an inert gas into the chamber system (figure 1, item 31); and a support table for supporting the semiconductor devices during bumping, the chamber system having an opening (figure 1, item 10, where the opening extends from item 10 to item 14); a bumping site located substantially adjacent to the opening of the chamber system (figure 1, item 7), said support table being operative to move the semiconductor devices from a bumping site into the chamber system after bumping (figure 1, item 3); at the bumping site the support table being receivable into the chamber system through the opening (figure 1, item 3); including an oxidation reduction device for introducing a supply of inert gas to the bumping site (figure 1, item 31); wherein the bumping site is adjacent to an opening of the chamber system (figure 3, item 17); including a shroud positioned around the bumping site for covering one or more bumped semiconductor devices (figure 1, item 15); wherein the shroud includes nozzles for introducing a supply of inert gas onto the semiconductor devices (figure 1, item 31); wherein the chamber system comprises an outer chamber, and an inner chamber that is houseable within the outer chamber (figure 6, items 11 and 2); wherein the inner chamber is removable from the outer chamber (figure 1, items 11 and 2); wherein the removable inner chamber comprises at least a portion of the support table and an inner chamber cover for forming an enclosure around bumped semiconductor devices (figure 1, item 11); including gas tubings that are detachably connectable to the inner chamber for bringing an inert gas into the inner chamber from an external source (figure 1, item 31); wherein the support table is coupled to a positioning device that is operative to move the support table along a first axis (figure 3, x axis); wherein the chamber system is coupled to a positioning device that is operative to move the chamber system along a second axis perpendicular to the first axis (figure 3, y axis); wherein the bump forming device is an ultrasonic wire bonder

Art Unit: 1725

(abstract); wherein the semiconductor devices are comprised in a semiconductor wafer and the support table capable of supporting a wafer on the table (figure 1, item 3).

Response to Arguments

Applicants argue Histaka allows a capillary to access the devices situated inside the house via a workhole. The examiner agrees. Applicant goes on to argue that because Hisataka teaches the wire bonding is carried out with the devices already in the middle of the housing, it cannot anticipate claim 1. The examiner disagrees. During patent examination, the pending claims must be "given the broadest reasonable interpretation." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). In the instant case, DICTIONARY.com defines "opening" as "open space." In the instant case, in applying the Prater test by giving the claims its broadest reasonable intepreation, the examiner interprets the opening of the chamber as the open area between the entrance 10 and exit 10.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

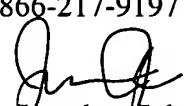
Art Unit: 1725

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177. The examiner can normally be reached on M-Th 7:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Johnson
Primary Examiner
Art Unit 1725